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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,040	09/29/2003	Durga Prasad Malladi	030245	2580

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EXAMINER	
NGUYEN, KHAI MINH	
ART UNIT	PAPER NUMBER
2617	

NOTIFICATION DATE	DELIVERY MODE
03/26/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/674,040	MALLADI ET AL.	
	Examiner	Art Unit	
	KHAI M. NGUYEN	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 January 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-12,14-18,20-30 and 32-54* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *4,21,33 and 39* is/are allowed.

6)☒ Claim(s) *1,3,5-12,14-18,20,22-30,32,34-38, and 40-54* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/16/2009 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3, 5-12, 14-18, 20, 22-30, 32, 34-38, and 40-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jung (U.S.Pat-6049716) in view of Fong et al. (U.S.Pub-20040013102).

Regarding claims 1 and 53, Jung teaches a method/ apparatus wireless communication system comprising:

a network (fig.1-2, col.3, lines 11-15);

a base station coupled to the network (fig.1-2, col.2, lines 3-15); and

a mobile station coupled to the base station via a wireless communication link (fig.1-2, col.2, lines 3-15);

wherein the network is configured to direct the mobile station to enter or leave soft handoff (col.5, lines 35-67); and

Jung fails to specifically disclose wherein the mobile station is configured to modify a transmission parameter in response to the network directing the mobile station to enter or leave soft handoff, wherein the transmission parameter comprises a frame size, wherein if the mobile station is directed to enter soft handoff, the frame size is set to a first size and wherein if the mobile station is directed to leave soft handoff, the frame size is set to a second size.

However, Fong teaches wherein the mobile station is configured to modify a transmission parameter in response to the network directing the mobile station to enter or leave soft handoff, wherein the transmission parameter comprises a frame size, wherein if the mobile station is directed to enter soft handoff, the frame size is set to a first size and wherein if the mobile station is directed to leave soft handoff, the frame size is set to a second size.

However, Fong teaches wherein the mobile station is configured to modify a transmission parameter in response to the network directing the mobile station to enter or leave soft handoff ([0053]), wherein if the mobile station is directed to enter soft handoff ([0053]), the frame size is set to a first size (packet size and transmission duration) and wherein if the mobile station is directed to leave soft handoff ([0053]), the frame size is set to a second size (packet size and transmission duration).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Fong to Jung to reduce complexity and resource management overhead.

Regarding claim 3, Jung and Fong further teach a wireless communication system as recited in claim 1, wherein the first size is greater than the second size (see Fong, [0005] and [0053] depended packet size and transmission duration).

Regarding claim 5, Jung and Fong further teach a wireless communication system as recited in claim 1, wherein the mobile station is configured to measure a pilot signal strength for each of one or more base stations (see Jung, col.2, line 3 to col.3, line 67), wherein the one or more base stations include the base station coupled to the mobile station (see Jung, fig.2), and to periodically (see Jung, col.5, lines 22-24) transmit one or more pilot strength measurement messages to the network (see Jung, col.2, lines 16-41).

Regarding claim 6, Jung and Fong further teach a wireless communication system as recited in claim 5, wherein the network is configured to identify a change in a number of base stations in an active set for the mobile station based on the pilot strength measurement messages (see Jung, col.2, lines 16-41) and to direct the mobile station to enter or leave soft handoff based on the change in the number of base stations in the active set (see Jung, col.2, lines 16-65).

Regarding claim 7, Jung and Fong further teach a wireless communication system as recited in claim 1, wherein the network is configured to direct the mobile station to enter or leave soft handoff by sending a handoff direction message (HDM) to

the mobile station (see Jung, col.1, lines 36-65).

Regarding claim 8, Jung and Fong further teach a wireless communication system as recited in claim 7, wherein the mobile station is configured to modify the transmission parameter (see Jung, col.2, lines 16-65) in response to receiving the HDM from the network (see Jung, fig.6, col.7, lines 11-44).

Regarding claim 9, Jung and Fong further teach a wireless communication system as recited in claim 8, wherein the mobile station is configured to transmit a handoff completion message to the network after receiving the HDM (see Jung, fig.6, col.7, lines 11-44).

Regarding claim 10, Jung teaches a mobile station configured to operate in a wireless communication system comprising:

a processing subsystem is configured (col.2, line 42 to col.3, line 3) to set a transmission parameter comprising a frame size for the transceiver subsystem in response to detecting that the mobile station is entering or leaving soft handoff (not show); and

Jung fails to specifically disclose set a transmission parameter comprising a frame size for the transceiver subsystem in response to detecting that the mobile station is entering or leaving soft handoff and a transceiver subsystem configured to transmit data on reverse link in accordance with the frame size.

However, Fong teaches set a transmission parameter comprising a frame size ([0005]) for the transceiver subsystem in response to detecting that the mobile station is

entering or leaving soft handoff ([0053]) and a transceiver subsystem configured to transmit data on reverse link in accordance with the frame size ([0053])

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Fong to Jung to reduce complexity and resource management overhead.

Regarding claim 11, Jung and Fong further teach a mobile station as recited in claim 10, wherein the processing subsystem is configured to detect that the mobile station is entering or leaving soft handoff based upon a received handoff direction message (HDM) (see Jung, col.2, lines 16-65).

Regarding claim 12, Jung and Fong further teach a mobile station as recited in claim 11, wherein the processing subsystem is configured to set the frame size (see Fong, [0005]) to a first value if the HDM directs the mobile station to enter soft handoff (see Jung, col.2, lines 16-65, see Fong, [0052]-[0053]), and to set the parameter frame size to a second value if the HDM directs the mobile station to leave soft handoff (see Fong, [0052]-[0053]).

Regarding claim 14 is rejected with the same reasons set forth in claim 3.

Regarding claim 15, Jung teaches a mobile station configured to operate in a wireless communication system comprising:

a processing subsystem (col.2, line 42 to col.3, line 3); and

a transceiver subsystem (col.2, line 42 to col.3, line 3);

wherein the processing subsystem is configured to set a transmission parameter

for the transceiver subsystem in response to detecting that the mobile station is entering or leaving soft handoff (col.5, lines 35-67), to detect that the mobile station is entering or leaving soft handoff based upon a received handoff direction message (HDM) (col.5, lines 44-67),

Jung fails to specifically disclose to set the transmission parameter to a first value if the HDM directs the mobile station to enter soft handoff, and set the transmission parameter to a second value if the HDM directs the mobile station to leave soft handoff, wherein the transmission parameter comprises a frame size, and wherein the first size value is greater than the second value.

However, Fong teaches set the transmission parameter to a first value (packet size and transmission duration) if the HDM directs the mobile station to enter soft handoff ([0052]-[0053]), and set the transmission parameter to a second value (packet size and transmission duration) if the HDM directs the mobile station to leave soft handoff ([0052]-[0053]), wherein the transmission parameter comprises a frame size ([0052]-[0053]), and wherein the first size value (packet size and transmission duration) is greater than the second value (packet size and transmission duration) ([0052]-[0053]).

.Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Fong to Jung and Fong to reduce complexity and resource management overhead.

Regarding claim 16, Jung and Fong further teach a mobile station as recited in claim 10, wherein the transceiver subsystem is configured measure a pilot signal strength for each of one or more base stations (see Jung, col.2, lines 16-65) and to periodically (see Jung, col.3, lines 22-24) transmitting transmit one or more pilot strength measurement messages to a network connected to the base stations (see Jung, col.2, lines 16-65).

Regarding claim 17, Jung and Fong further teach a mobile station as recited in claim 11, wherein the processing subsystem is configured to send a handoff completion message after receiving the HDM (see Jung, fig.6, col.7, lines 11-44).

Regarding claim 18, Jung teaches a method implemented in a wireless communication system comprising:

detecting a mobile station entering or leaving soft handoff (col.5, lines 35-67); and

Jung fails to specifically disclose modifying a transmission parameter for the mobile station in response to detecting the mobile station entering or leaving soft handoff; and wherein the transmission parameter comprises a frame size, wherein if the mobile station is detected entering soft handoff, the frame size is set to a first size and wherein if the mobile station is detected leaving soft handoff, the frame size is set to a second size.

However, Fong teaches modifying a transmission parameter for the mobile station in response to detecting the mobile station entering or leaving soft handoff

([0005] and [0053]); and wherein the transmission parameter comprises a frame size (packet size and transmission duration), wherein if the mobile station is detected entering soft handoff ([0052]-[0053]), the frame size (packet size and transmission duration) is set to a first size (packet size and transmission duration) and wherein if the mobile station is detected leaving soft handoff ([0052]-[0053]), the frame size is set to a second size (packet size and transmission duration).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Fong to Jung and Fong to reduce complexity and resource management overhead.

Regarding claim 20 is rejected with the same reasons set forth in claim 3.

Regarding claim 22, Jung and Fong further teach a method as recited in claim 18, further comprising the mobile station measuring a pilot signal strength for each of one or more base stations (see Jung, col.2, lines 16-65) and periodically transmitting one or more pilot strength measurement messages to a network (see Jung, col.2, lines 16-65).

Regarding claim 23, Jung and Fong further teach a method as recited in claim 22, wherein detecting the mobile station entering or leaving soft handoff comprises identifying a change in a number of base stations in an active set for the mobile station based on the pilot strength measurement messages (see Jung, col.5, lines 35-67).

Regarding claim 24, Jung and Fong further teach a method as recited in claim 23, further comprising sending a handoff direction message (HDM) from the network to

the mobile station in response to detecting the change in the number of base stations in an the active set (see Jung, fig.6, col.5, lines 35-67).

Regarding claim 25 is rejected with the same reasons set forth in claim 8.

Regarding claim 26 is rejected with the same reasons set forth in claim 9.

Regarding claim 27, Jung teaches a method implemented in a mobile station, comprising:

detecting that the mobile station is entering or leaving soft handoff (col.5, lines 35-67);

Jung fails to specifically disclose if the mobile station is entering soft handoff, setting a transmission parameter to a first value; and if the mobile station is leaving soft handoff, setting the transmission parameter to a second value; wherein the transmission parameter comprises frame size.

However, Fong teaches if the mobile station is entering soft handoff ([0005] and [0053]), setting a transmission parameter to a first value (packet size and transmission duration); and if the mobile station is leaving soft handoff ([0052]-[0053]), setting the transmission parameter to a second value (packet size and transmission duration); wherein the transmission parameter comprises frame size (packet size and transmission duration).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Fong to Jung to reduce complexity and resource management overhead.

Regarding claim 28, Jung and Fong further teach a method as recited in claim 27, wherein detecting that the mobile station is entering or leaving soft handoff comprises receiving a handoff direction message (HDM) from a network (see Jung, col.2, lines 16-65).

Regarding claim 29, Jung and Fong further teach a method as recited in claim 27, further comprising measuring a pilot signal strength for each of one or more base stations (see Jung, col.2, lines 16-65) and periodically transmitting one or more pilot strength measurement messages to a first one of the base stations (see Jung, col.2, lines 16-65).

Regarding claim 30 is rejected with the same reasons set forth in claim 9.

Regarding claim 32 is rejected with the same reasons set forth in claim 3.

Regarding claim 34, Jung teaches an apparatus for wireless communication, comprising:

means for detecting that a mobile station is entering or leaving soft handoff (col.5, lines 35-67);

Jung fails to specifically disclose means for setting a transmission parameter to a first value if the mobile station is entering soft handoff; and means for setting the transmission parameter to a second value if the mobile station is leaving soft handoff, the transmission parameter comprising a frame size.

However, Fong teaches means for setting a transmission parameter to a first value (packet size and transmission duration) if the mobile station is entering soft handoff ([0052]-[0053]); and means for setting the transmission parameter to a second value (packet size and transmission duration) if the mobile station is leaving soft handoff ([0052]-[0053]), the transmission parameter comprising a frame size (packet size and transmission duration [0005]).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Fong to Jung to reduce complexity and resource management overhead.

Regarding claim 35 is rejected with the same reasons set forth in claim 28.

Regarding claim 36 is rejected with the same reasons set forth in claim 30.

Regarding claim 37 is rejected with the same reasons set forth in claim 29.

Regarding claim 38 is rejected with the same reasons set forth in claim 3.

Regarding claim 40, Jung and Fong further teach the apparatus of claim 34, further comprising:

means for transmitting data on reverse link in accordance with the frame size (see Fong, col.2, lines 14-16).

Regarding claims 41 and 54, Jung teaches a processor-readable medium including instructions stored thereon, comprising:

instructions for detecting that a mobile station is entering or leaving soft handoff (col.5, lines 35-67);

Jung fails to specifically disclose instructions for modifying a transmission parameter for the mobile station in response to detecting the mobile station entering or leaving soft handoff; and instructions for setting a transmission parameter to a first value if the mobile station is entering soft handoff; and instructions for setting the transmission parameter to a second value if the mobile station is leaving soft handoff, the transmission parameter comprising a frame size.

However, Fong teaches instructions for modifying a transmission parameter for the mobile station in response to detecting the mobile station entering or leaving soft handoff ([0052]-[0053]); and instructions for setting a transmission parameter to a first value (packet size and transmission duration) if the mobile station is entering soft handoff ([0052]-[0053]); and instructions for setting the transmission parameter to a second value (packet size and transmission duration) if the mobile station is leaving soft handoff ([0052]-[0053]), the transmission parameter comprising a frame size (packet size and transmission duration [0005]).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Fong to Jung to reduce complexity and resource management overhead.

Regarding claim 42, Jung and Fong further teach the processor-readable medium of claim 41, further comprising:

instructions for receiving a handoff direction message (HDM) from a network (see Jung, col.2, lines 16-65).

Regarding claim 43, Jung and Fong further teach the processor-readable medium of claim 42, further comprising:

instructions for sending a handoff completion message to the network after receiving the HDM (see Jung, fig.6, col.7, lines 11-44).

Regarding claim 44, Jung and Fong further teach the processor-readable medium of claim 41, further comprising:

instructions for obtaining a pilot signal strength for each of one or more base stations (see Jung, col.2, lines 16-65); and instructions for periodically sending one or more pilot strength measurement messages to a first one of the base stations (see Jung, col.2, lines 16-65).

Regarding claim 45, Jung and Fong further teach the processor-readable medium of claim 41, wherein the first value is greater than the second value (see Fong, [0005] and [0053]).

Regarding claim 46, Jung and Fong further teach the processor-readable medium of claim 41, further comprising: instructions for directing transmission of data on reverse link in accordance with the frame size (see Fong, [0052]-[0053]).

Regarding claim 47 is rejected with the same reasons set forth in claim 1.

Regarding claim 48 is rejected with the same reasons set forth in claim 1.

Regarding claim 49 is rejected with the same reasons set forth in claim 3.

Regarding claim 50, Jung and Fong further teach a method as recited in claim 27, wherein if the mobile station is entering soft handoff (see Jung, col.2, lines 16-65), configuring the mobile station to transmit at a first data rate (see Fong, [0052]-[0053]), and if the mobile station is leaving soft handoff (see Jung, col.2, lines 16-65), configuring the mobile station to transmit at a second data rate (see Fong, [0052]-[0053]).

Regarding claim 51, Jung and Fong further teach a method as recited in claim 50, wherein the first data rate is less than the second data rate (see Fong, [0053] date rate based on packet size and transmission duration).

Regarding claim 52, Jung and Fong further teach a method as recited in claim 51, wherein the first data rate is five times less than the second data rate (see Fong, [0053] date rate based on packet size and transmission duration).

Allowable Subject Matter

3. Claims 4, 21, 33, and 39 are allowed.

Applicant's independent claims 4, 21, 33, and 39: The present in invention is directed to a wireless communication system, the independent claim identifies the patentably distinct feature "wherein the transmission parameter comprises a frame size, wherein if the mobile station is directed to enter soft handoff, the frame size is set to a first size and wherein if the mobile station is directed to leave soft handoff, the frame size is set to a second size, wherein the first size is greater than the second size, and wherein the first size is 10 ms and the second size is 2 ms ". Applicant's independent

claims 4, 15, 21 and 33 comprise a particular combination of elements, which is neither taught nor-suggested by prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submission should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAI M. NGUYEN whose telephone number is (571)272-7923. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent P. Harper can be reached on 571.272.7605. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VINCENT P. HARPER/
Supervisory Patent Examiner, Art Unit 2617

/Khai M Nguyen/
Examiner, Art Unit 2617 3/18/2009